

AL-V-A-274

Kaiser Refractories  
Zihlman  
Private

1902

Kaiser Refractories is a clay/alumina brick plant on the northern side of Route 36 in Zihlman, MD. The plant office is a 1½ story brick structure. It rests on a cement foundation and has a hipped roof with a gabled dormer.

## MARYLAND HISTORICAL TRUST

AL-V-A-274

MAGI #0111875716

INVENTORY FORM FOR STATE HISTORIC SITES SURVEY<sup>M</sup>**1 NAME**

HISTORIC

Big Savage Fire Brick Company

AND/OR COMMON

Kaiser Refractories

**2 LOCATION**

STREET &amp; NUMBER

Rt. 36

CITY, TOWN

Zihlman

— VICINITY OF

CONGRESSIONAL DISTRICT

STATE

Maryland

6th  
COUNTY

Allegany County

**3 CLASSIFICATION**

## CATEGORY

☐ DISTRICT☐ BUILDING(S)☒ STRUCTURE☐ SITE☐ OBJECT

## OWNERSHIP

☐ PUBLIC☒ PRIVATE☐ BOTH

## PUBLIC ACQUISITION

☐ IN PROCESS☐ BEING CONSIDERED

## STATUS

☐ OCCUPIED☐ UNOCCUPIED☐ WORK IN PROGRESS

## ACCESSIBLE

☐ YES: RESTRICTED☐ YES: UNRESTRICTED☒ NO

## PRESENT USE

☐ AGRICULTURE☐ MUSEUM☐ COMMERCIAL☐ PARK☐ EDUCATIONAL☐ PRIVATE RESIDENCE☐ ENTERTAINMENT☐ RELIGIOUS☐ GOVERNMENT☐ SCIENTIFIC☐ INDUSTRIAL☐ TRANSPORTATION☐ MILITARY☐ OTHER**4 OWNER OF PROPERTY**

NAME

Telephone #:

STREET &amp; NUMBER

CITY, TOWN

— VICINITY OF

STATE, zip code

**5 LOCATION OF LEGAL DESCRIPTION**

COURTHOUSE

REGISTRY OF DEEDS, ETC.

Allegany County Courthouse

Liber #:

Folio #:

STREET &amp; NUMBER

30 Washington Street

CITY, TOWN

Cumberland

STATE

Maryland 21502

**6 REPRESENTATION IN EXISTING SURVEYS**

TITLE

DATE

☐ FEDERAL ☐ STATE ☐ COUNTY ☐ LOCALDEPOSITORY FOR  
SURVEY RECORDS

CITY, TOWN

STATE

## 7 DESCRIPTION

AL-10571

### CONDITION

☐ EXCELLENT  
☐ GOOD  
☒ FAIR

☐ DETERIORATED  
☐ RUINS  
☐ UNEXPOSED

### CHECK ONE

☐ UNALTERED  
☒ ALTERED

### CHECK ONE

☐ ORIGINAL SITE  
☐ MOVED DATE \_\_\_\_\_

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DESCRIBE THE PRESENT AND ORIGINAL (IF KNOWN) PHYSICAL APPEARANCE

Kaiser Refractories is a clay/alumina brick plant on the northern side of Route 36 in Zihlman, Md. Recent expansion and modernization of the plant have drastically altered its appearance. The plant office is a 1½ story brick structure. It rests on a cement foundation and has a hipped roof with a gabled dormer. A similar plant in Mount Savage, the Mount Savage Refractories, has retained more of its original appearance.

CONTINUE ON SEPARATE SHEET IF NECESSARY

PERIOD		AREAS OF SIGNIFICANCE -- CHECK AND JUSTIFY BELOW			
<input type="checkbox"/> PREHISTORIC	<input type="checkbox"/> ARCHEOLOGY-PREHISTORIC	<input type="checkbox"/> COMMUNITY PLANNING	<input type="checkbox"/> LANDSCAPE ARCHITECTURE	<input type="checkbox"/> RELIGION	
<input type="checkbox"/> 1400-1499	<input type="checkbox"/> ARCHEOLOGY-HISTORIC	<input type="checkbox"/> CONSERVATION	<input type="checkbox"/> LAW	<input type="checkbox"/> SCIENCE	
<input type="checkbox"/> 1500-1599	<input type="checkbox"/> AGRICULTURE	<input type="checkbox"/> ECONOMICS	<input type="checkbox"/> LITERATURE	<input type="checkbox"/> SCULPTURE	
<input type="checkbox"/> 1600-1699	<input checked="" type="checkbox"/> ARCHITECTURE	<input type="checkbox"/> EDUCATION	<input type="checkbox"/> MILITARY	<input type="checkbox"/> SOCIAL/HUMANITARIAN	
<input type="checkbox"/> 1700-1799	<input type="checkbox"/> ART	<input type="checkbox"/> ENGINEERING	<input type="checkbox"/> MUSIC	<input type="checkbox"/> THEATER	
<input type="checkbox"/> 1800-1899	<input type="checkbox"/> COMMERCE	<input type="checkbox"/> EXPLORATION/SETTLEMENT	<input type="checkbox"/> PHILOSOPHY	<input type="checkbox"/> TRANSPORTATION	
<input checked="" type="checkbox"/> 1900-	<input type="checkbox"/> COMMUNICATIONS	<input type="checkbox"/> INDUSTRY	<input type="checkbox"/> POLITICS/GOVERNMENT	<input type="checkbox"/> OTHER (SPECIFY)	
		<input type="checkbox"/> INVENTION			

SPECIFIC DATES

BUILDER/ARCHITECT

STATEMENT OF SIGNIFICANCE

The Kaiser Refractoreries plant at Zihlman "was built in 1902 by the Big Savage Fire Brick Company to take advantage of proven and valuable clay reserves on the property." 1

CONTINUE ON SEPARATE SHEET IF NECESSARY

## 9 MAJOR BIBLIOGRAPHICAL REFERENCES

<sup>1</sup>"Kaiser Refractoris Frostburg Profile", privately published by the Kaiser Aluminum and Chemical Co., 1979.

CONTINUE ON SEPARATE SHEET IF NECESSARY

## 10 GEOGRAPHICAL DATA

ACREAGE OF NOMINATED PROPERTY \_\_\_\_\_

VERBAL BOUNDARY DESCRIPTION

LIST ALL STATES AND COUNTIES FOR PROPERTIES OVERLAPPING STATE OR COUNTY BOUNDARIES

STATE

COUNTY

STATE

COUNTY

## 11 FORM PREPARED BY

NAME/TITLE

David A. Dorsey, Historic Sites Surveyor

ORGANIZATION

DATE

Maryland Historical Trust/Bureau of Mines

May 1982

STREET & NUMBER

TELEPHONE

21 State Circle, Shaw House

(301) 269-2438

CITY OR TOWN

STATE

Annapolis

Maryland 21401

The Maryland Historic Sites Inventory was officially created by an Act of the Maryland Legislature, to be found in the Annotated Code of Maryland, Article 41, Section 181 KA, 1974 Supplement.

The Survey and Inventory are being prepared for information and record purposes only and do not constitute any infringement of individual property rights.

RETURN TO: Maryland Historical Trust  
The Shaw House, 21 State Circle  
Annapolis, Maryland 21401  
(301) 267-1438

Mr. Robert Kuegel  
AL-V-A-274

AL-V-A-274

**KAISER**  
REFRACTORIES

# **Frostburg**

## **Profile**

### **History**

The Frostburg plant was built in 1902 by the Big Savage Fire Brick Company to take advantage of proven and valuable clay reserves on the property. In 1938 the plant was purchased by National Refractories, a subsidiary of Mexico Refractories, and was managed by that company until 1959 when Kaiser Refractories merged with Mexico Refractories. In 1967 new facilities were added by Kaiser Refractories, supplementing the plant's production of fireclay brick products with a complete line of specialty refractories.

\$6.7 million.

Clay/alumina brick plant; clay/alumina specialties plant.

63,000 tons of clay/alumina brick; 29,000 tons of clay/alumina specialties.

Steel, glass, cement.

The plant has a year-round work force of approximately 165 employees, and an annual payroll, including fringe benefits, of about \$3 million.

Extensive mining properties; and 48 acres of plant area, of which 225,000 square feet is under roof.

Approximately \$6.8 million (including salaries and benefits to employees; the purchase of supplies, utilities, and services; freight charges; and state and local taxes).

Kaiser Refractories is a division of Kaiser Aluminum & Chemical Corporation, Oakland, California.

The Frostburg plant is one of eight manufacturing facilities in the United States operated by Kaiser Refractories. The company also owns, either in whole or in part, six additional plants outside the U.S.

### **Investment to Date**

### **Principal Production Units**

### **Principal Products and Annual Capacities**

### **Principal Industries Served**

### **Employment**

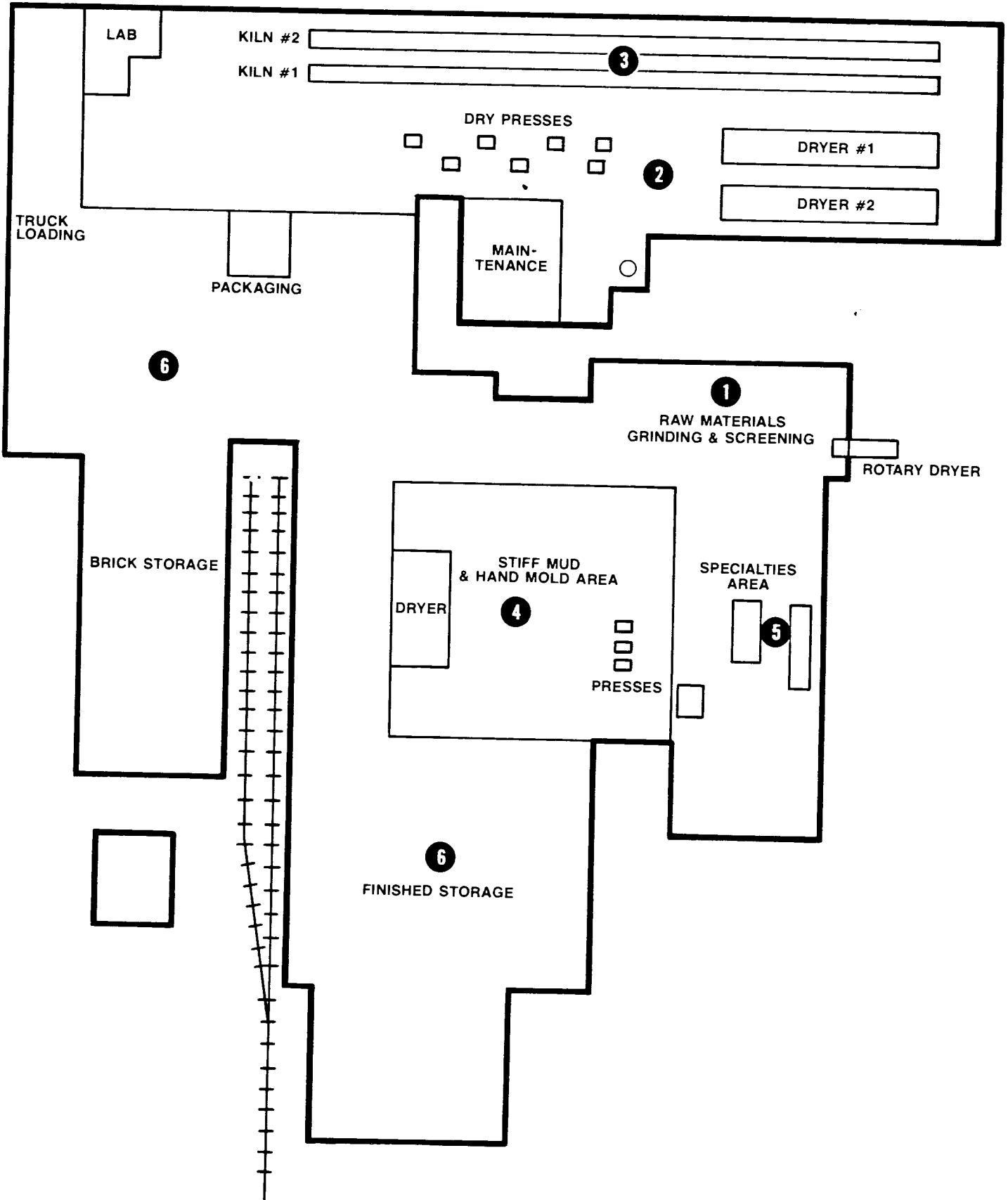
### **Land Area**

### **Annual Economic Impact On Community**

### **Ownership**

### **International Scope**

- 1 Raw Materials Processing** The primary raw materials used at Frostburg are high-grade refractory clays (most of which are mined at the plant's Ohiopyle mine, about 45 miles from the plant site), and imported bauxite. Both enter the plant here, where they are crushed and sized to specification.
- 2 Dry Presses and Dryers** Here mixtures of clays and bauxite are formed into brick by one of seven Boyd presses. Each press exerts up to 500 tons of pressure and can make up to 28 brick a minute. After the brick are formed they move through continuous tunnel dryers where moisture is removed.
- 3 Tunnel Kilns** Leaving the dryers, all brick at Frostburg are then sent through one of the plant's two 400-foot-long tunnel kilns. Firing in kilns eliminates chemically combined water and develops a ceramic bond between the refractory aggregates which contributes to such physical properties as density, porosity, and strength. Temperatures inside the kilns – in which the brick stay for up to three days – peak at about 2500 degrees Fahrenheit.
- 4 Stiff Mud and Hand Mold Area** In stiff mud refractory production varying mixtures of clays are tempered and then extruded. The column of clay produced is then sliced with wire into desired lengths and formed by one of three presses. Brick produced in this manner are dried for 48 hours in adjacent dryers and fired in a tunnel kiln. A small percentage of refractory shapes at Frostburg are made by the hand mold process. These shapes are also dried and then fired in a tunnel kiln. Stiff mud brick are denser than those made on dry presses, while hand molding is used where particularly intricate shapes are required, or for especially small orders.
- 5 Specialties Area** Refractory specialties are non-brick products – plastics, ramming mixes, castables, mortars, and gunning mixes, as examples – which may be used for initial furnace linings, for maintenance purposes, and to bond brick. Specialty materials are sacked in granular form or otherwise packaged for application at the customer's plant. In addition to supplying packaged specialties, Frostburg sells and rents equipment for applying specialties and trains customers in application technology.
- 6 Packaging and Shipping** Using standard procedures set forth by the Refractories Institute, brick are palletized according to specified counts, and then wrapped in a shrink film or a cardboard-banded package based on customer preference. In addition to normal domestic procedures, stringent export packaging requirements also must be met. All refractory products leaving Frostburg are protected in transit to prevent breakage or contamination.





# **KAISER REFRACTORIES**

## **WORLD HEADQUARTERS**

300 Lakeside Drive, Oakland, CA 94643, U.S.A.  
Cable: KAISEREF      Telex: 335315

## **DISTRICT SALES OFFICES (U.S.A.)**

**ALABAMA**  
Birmingham

**ARIZONA**  
Tempe

**CALIFORNIA**  
Newark  
Los Angeles (Mira Loma)

**COLORADO**  
Denver (Englewood)

**FLORIDA**  
Tampa

**ILLINOIS**  
Chicago (Bridgeview)

**INDIANA**  
Indianapolis

**IOWA**  
Bettendorf

**KANSAS**  
Kansas City

**LOUISIANA**  
Baton Rouge

**MARYLAND**  
Severna Park

**MASSACHUSETTS**  
Wayland

**MICHIGAN**  
Detroit (Dearborn)

**MISSOURI**  
St. Louis

**NEW JERSEY**  
Cranford

**NEW YORK**  
Buffalo

**NORTH CAROLINA**  
Charlotte

**OHIO**  
Cleveland (Rocky River)

Columbiana  
Marietta  
Toledo

Youngstown

**OKLAHOMA**  
Tulsa

**OREGON**  
Portland

**PENNSYLVANIA**  
Pittsburgh  
Plymouth Meeting

**TEXAS**  
Houston

**UTAH**  
Springville

**WASHINGTON**  
Tacoma

**EUROPE & MIDDLE EAST**  
Kaiser Refractories International  
London, England

**PUERTO RICO**  
Kaiser Refractories International  
Santurce, Puerto Rico



## **SUBSIDIARIES**

### **AUSTRALIA**

Kaiser Refractories, Division of Kaiser Aluminum & Chemical Corporation  
(Australia) Limited, Unanderra, N.S.W.

### **CANADA**

Kaiser Refractories, Division of Kaiser Aluminum & Chemical of Canada Limited,  
Oakville, Ontario

## **LICENSEES**

### **ARGENTINA**

KICSA Industrial y Comercial S.A., Buenos Aires

### **FRANCE**

KER France S.A., Paris

### **SWEDEN**

Bohlin & Lofgren AB, Goteborg

### **UNITED KINGDOM**

KER (U.K.) Limited, Leeds

### **JAPAN**

Nippon Reona Company, Ltd.

AL-1-1-274

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Maryland Department of Assessments and Taxation  
**ALLEGANY COUNTY**  
 Real Property Data Search

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**Account Identifier:** District - 30 **Account Number -** 002806

#### Owner Information

**Owner Name:** MT SAVAGE REFRACTORIES CO  
 A DEL CORP  
**Use:** INDUSTRIAL  
**Principal Residence:** NO  
**Mailing Address:** 5741 CENTRE AVE  
 PITTSBURGH PA 15206-3707  
**Deed Reference:** 1) / 559/ 595  
 2)

#### Location & Structure Information

**Premises Address** **Zoning** **Legal Description**  
 ROUTE 36 ROAD  
 FROSTBURG 21532  
 28.608A  
 RT 36 COR SUGAR ROW RD  
 ZIHLMAN

Map	Grid	Parcel	Sub District	Subdivision	Section	Block	Lot	Group	Plat No:
13	19	330						81	Plat Ref:

**Special Tax Areas** **Town**  
**Ad Valorem**  
**Tax Class**

Primary Structure Built	Enclosed Area	Property Land Area	County Use
0000		28.60 AC	
<b>Stories</b>	<b>Basement</b>	<b>Type</b>	<b>Exterior</b>

#### Value Information

	Base Value	Value As Of 01/01/2002	Phase-in Assessments As Of 07/01/2003	As Of 07/01/2004
<b>Land:</b>	65,300	65,300		
<b>Improvements:</b>	449,400	449,400		
<b>Total:</b>	514,700	514,700	514,700	514,700
<b>Preferential Land:</b>	0	0	0	0

#### Transfer Information

<b>Seller:</b> KAISER ALUMINUM & CHEMICAL CORP	<b>Date:</b> 10/09/1986	<b>Price:</b> \$100,000
<b>Type:</b> NOT ARMS-LENGTH	<b>Deed1:</b> / 559/ 595	<b>Deed2:</b>
<b>Seller:</b>	<b>Date:</b>	<b>Price:</b>
<b>Type:</b>	<b>Deed1:</b>	<b>Deed2:</b>
<b>Seller:</b>	<b>Date:</b>	<b>Price:</b>
<b>Type:</b>	<b>Deed1:</b>	<b>Deed2:</b>

#### Exemption Information

Partial Exempt Assessments	Class	07/01/2003	07/01/2004
<b>County</b>	000	0	0
<b>State</b>	000	0	0
<b>Municipal</b>	000	0	0

**Tax Exempt:** NO  
**Exempt Class:**

**Special Tax Recapture:**

\* NONE \*

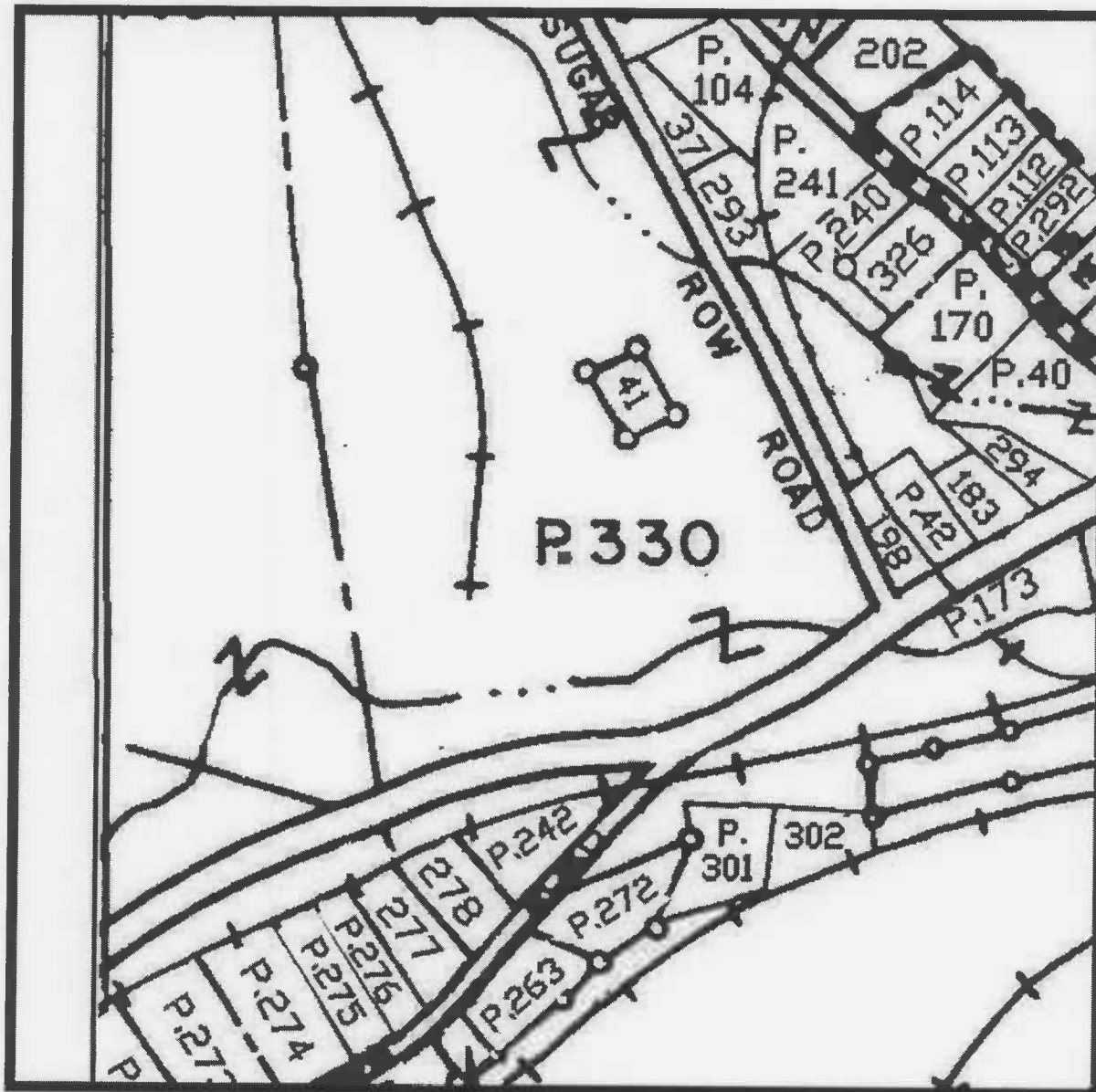
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Maryland Department of Assessments and Taxation  
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District - 30 Account Number - 002806



Property maps provided courtesy of the Maryland Department of Planning ©2001 - 2002.  
For more information on electronic mapping applications, visit the Maryland Department of Planning  
web site at [www.mdp.state.md.us/webcom/index.html](http://www.mdp.state.md.us/webcom/index.html)



Frostburg, MD:PA  
USGS 7.5 Minute Series  
Scale 1:24,000  
1949; photorevised 1974

AL-V-A-274  
Kaiser Refractories  
Route 36, Zihlman

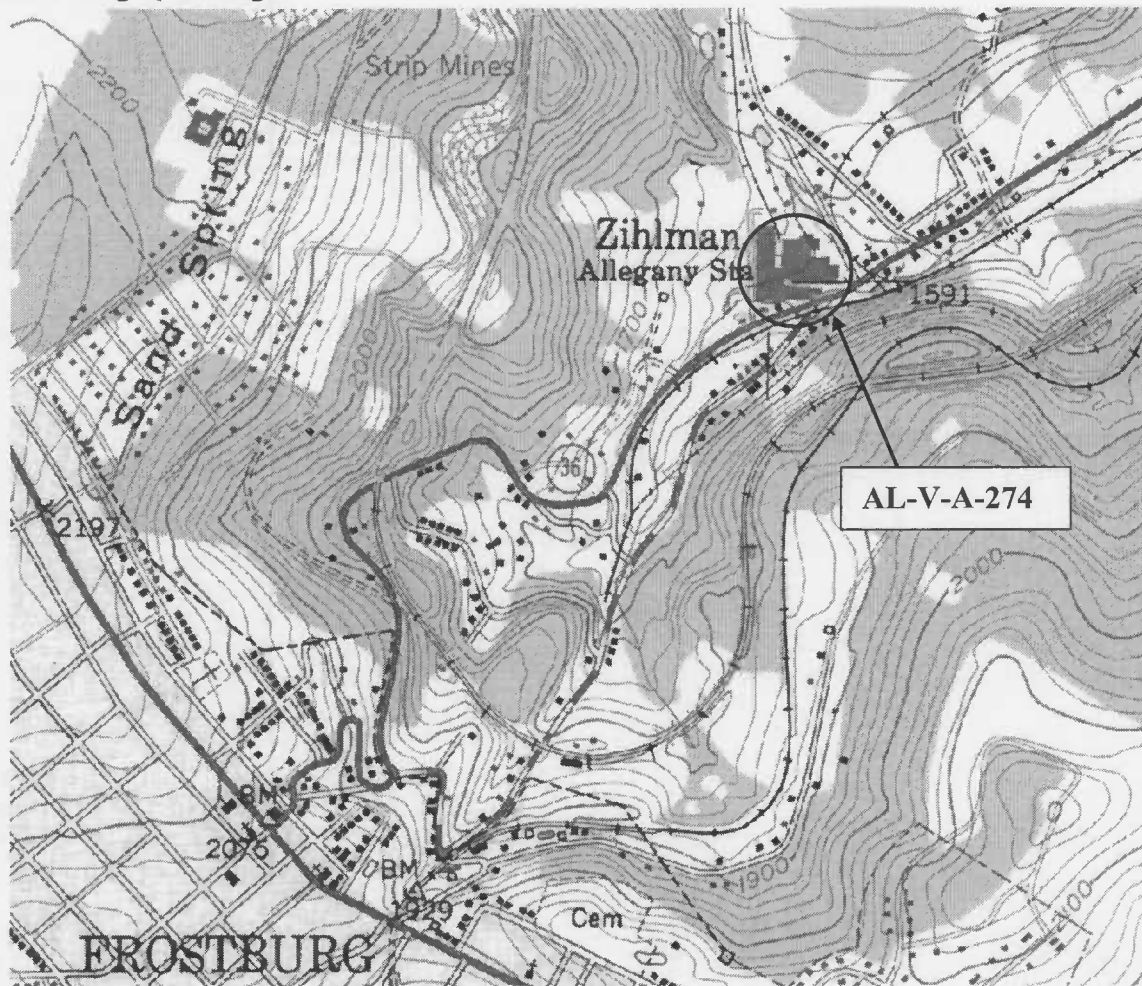
FROSTBURG

AL-V-A-274

Kaiser Refractories (Big Savage Fire Brick Company)

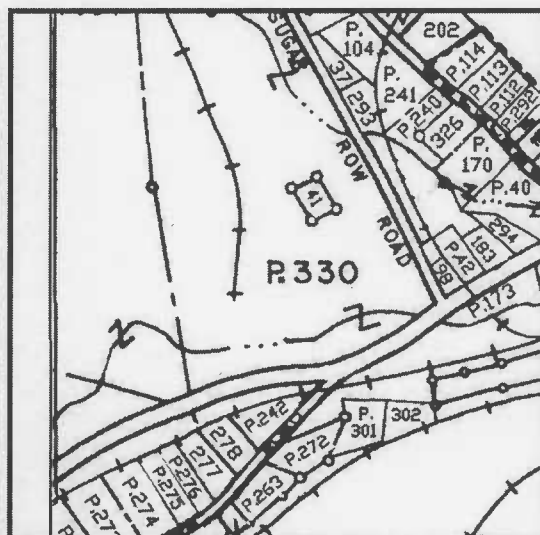
Mt. Savage Road (MD 36) & Sugar Row Road

Frostburg Quadrangle



1998 Aerial Photo

Tax Map 13







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Kaiser Refractories

Allegany Co., MD

David A. Dorsey 10/80

Looking West